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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,211	01/17/2007	Yasutoshi Kawaguchi	OKUDP0163US	7642
51921 7590 07/21/2011 MARK D. SARALINO (PAN) RENNER, OTTO, BOISSELLE & SKLAR, LLP 1621 EUCLID AVENUE 19TH FLOOR CLEVELAND, OH 44115				
EXAMINER SAYADIAN, HIRAYR				
ART UNIT 2814		PAPER NUMBER		
MAIL DATE 07/21/2011		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## DETAILED ADVISORY OFFICE ACTION

### Response to Arguments

1. The arguments in the 6/17/2011 "Reply" to the 3/22/2011 "Office Action" have been fully considered. These arguments however are not found persuasive.

Pointing to column 8, lines 21-38 of Okumura, and quoting the relevant portion, the Reply contends that there is no teaching of both the 1<sup>st</sup> p-type semiconductor layer containing Al and Mg and the non-doped nitride layer in contact with the 1<sup>st</sup> p-type semiconductor layer.

In response, and contrary to this contention, it is noted that Okumura explicitly teaches "[a]lternatively, a portion of the guide layers closer to the [MQW] structure active layer 6 may be non-doped," which is a teaching that guide layer 8 has a portion that is undoped in between the MQW and the doped guide layer, which undoped portion of guide layer 8 reads on the undoped nitride layer.

Recognizing that the taught AL includes plural InGaN layers, the Reply also contends that Okumura fails to disclose no intentional doped impurity because Okumura teaches InGaN along with small amount of additional elements.

In response, it is noted that "no intention doped impurity," as recited in claim 1, has a scope including presence of small amount of unintentional impurity. And the language intentional has no effect on the underlying structure including unintentional impurity because the claim is that of a product claim, which only can be limited by structural feature(s), which in this case is the presence or absence of doped impurities. The claim does not recite undoped InGaN layers; it recites the AL having no intentional doped impurity. And this has a scope including AL having intentionally doped impurity.

It is additionally noted, as recognized by the Reply, that Okumura teaches AL including plural InGaN layers, which may (alternatively) be made of quaternary material

containing one or more additional elements in small amount. And this teaching indicates that the InGaN itself would not contain the description that is alternative to it.

Accordingly, rejecting the pending claims as being unpatentable over the prior art is proper. And the prior art rejections therefore are maintained.

## CONCLUSION

2. **The shortened statutory period for reply to this Office Action expires THREE MONTHS from 3/22/2011, which is the mailing date of the Final Office Action.**

Extension of time for the period for reply may be obtained under 37 CFR § 1.136(a). **The maximum period for reply, however, is SIX MONTHS from 3/22/2011, which is the mailing date of the Final Office Action.**

Any inquiry concerning this communication or earlier communications from an Examiner should be directed to Examiner Hrayr A. Sayadian, at (571) 272-7779, on Monday through Friday, 7:30 am – 4:00 pm ET.

If attempts to reach Mr. Sayadian by telephone are unsuccessful, his supervisor, Supervisory Primary Examiner Wael Fahmy, can be reached at (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available only through Private PAIR. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. The Electronic Business Center (EBC) at (866) 217-9197 (toll-free) may answer questions on how to access the Private PAIR system.

/Hrayr A. Sayadian/

Primary Examiner, Art Unit 2814

1-571-272-7779